W. Davis
698705

conducting SmartSELECT searches.

Structure search limits have been increased. See HELP SLIMIT for details.

```
=> e maytansinoid/cn 5
E1            1     MAYTANSINE, O9-ETHYL-/CN
E2            1     MAYTANSINE, O9-METHYL-/CN
E3            0 --> MAYTANSINOID/CN
E4            1     MAYTANSINOID DM 1/CN
E5            1     MAYTANSINOL/CN

=> s e4
L1            1 "MAYTANSINOID DM 1"/CN

=> fil caplus;e anti prostate stem cell antigen/ct 5
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     4.11     448.78

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                       ENTRY    SESSION
CA SUBSCRIBER PRICE                                     0.00     -27.44

FILE 'CAPLUS' ENTERED AT 15:28:46 ON 05 SEP 2001
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FILE COVERS 1947 - 5 Sep 2001 VOL 135 ISS 11
FILE LAST UPDATED: 4 Sep 2001 (20010904/ED)

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```
E#   FREQUENCY    AT     TERM
--   ---------    --     ----
E1           1           ANTHYRIUM FILIX FEMINA/CT
E2           0     1     ANTI/CT
E3           0       --> ANTI PROSTATE STEM CELL ANTIGEN/CT
E4           0     1     ANTI-/CT
E5           0     1     ANTI-AIDS/CT

=> e anti-prostate stem cell antigen/ct 5
E#   FREQUENCY    AT     TERM
--   ---------    --     ----
E1           0     1     ANTI-PHASE/CT
E2           0     2     ANTI-PHASE BOUNDARIES/CT
E3           0       --> ANTI-PROSTATE STEM CELL ANTIGEN/CT
E4           1           ANTI-RESOILING AGENTS/CT
E5           0     1     ANTI-RHEUMATIC/CT

=> e prostate stem cell antigen/ct 5
E#   FREQUENCY    AT     TERM
--   ---------    --     ----
E1           0     2     PROSTATE NEOPLASM/CT
E2           0     3     PROSTATE NEOPLASM INHIBITORS/CT
E3           0       --> PROSTATE STEM CELL ANTIGEN/CT
E4           0     2     PROSTATE TUMOR/CT
E5           0     3     PROSTATE TUMOR INHIBITORS/CT

=> e psca/ct 5
E#   FREQUENCY    AT     TERM
--   ---------    --     ----
E1           0     1     PSC101/CT
E2           0     2     PSC101 PLASMID AND EPISOME/CT
E3           0       --> PSCA/CT
E4           0     1     PSCHORR/CT
E5          35     2     PSCHORR REACTION/CT

=> fil medli
COST IN U.S. DOLLARS                          SINCE FILE      TOTAL
                                                 ENTRY    SESSION
FULL ESTIMATED COST                               0.33     449.11

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)    SINCE FILE      TOTAL
                                                 ENTRY    SESSION
CA SUBSCRIBER PRICE                               0.00     -27.44

FILE 'MEDLINE' ENTERED AT 15:29:33 ON 05 SEP 2001

 FILE LAST UPDATED: 4 SEP 2001 (20010904/UP).  FILE COVERS 1958 TO DATE.

 On April 22, 2001, MEDLINE was reloaded.  See HELP RLOAD for details.
```

MEDLINE now contains IN-PROCESS records. See HELP CONTENT for details.

MEDLINE is now updated 4 times per week. A new current-awareness alert frequency (EVERYUPDATE) is available. See HELP UPDATE for more information.

MEDLINE thesauri in the /CN, /CT, and /MN fields incorporate the MeSH 2001 vocabulary. Enter HELP THESAURUS for details.

The OLDMEDLINE file segment now contains data from 1958 through 1965. Enter HELP CONTENT for details.

Left, right, and simultaneous left and right truncation are available in the Basic Index. See HELP SFIELDS for details.

THIS FILE CONTAINS CAS REGISTRY NUMBERS FOR EASY AND ACCURATE SUBSTANCE IDENTIFICATION.

```
=> e psca/ct 5
E#   FREQUENCY     AT      TERM
--   ---------     --      ----
E1           0      2      PSAMMOMYS/CT
E2           0      1      PSAUME/CT
E3           0        --> PSCA/CT
E4           0      1      PSCA2/CT
E5           0      2      PSDA/CT

=> e prostate stem cell antigen/ct 5
E#   FREQUENCY     AT      TERM
--   ---------     --      ----
E1           0      2      PROSTATE SPECIFIC ANTIGEN/CT
E2           0      2      PROSTATE SPECIFIC KALLIKREIN/CT
E3           0        --> PROSTATE STEM CELL ANTIGEN/CT
E4           0      2      PROSTATE TRANSURETHRAL RESECTION/CT
E5           0      2      PROSTATE TRANSURETHRAL RESECTIONS/CT

=> e anti-prostate stem cell antigen/ct 5
E#   FREQUENCY     AT      TERM
--   ---------     --      ----
E1           0      2      ANTI-PHOSPHOLIPID ANTIBODY SYNDROME/CT
E2           0      2      ANTI-PHOSPHOLIPID SYNDROME/CT
E3           0        --> ANTI-PROSTATE STEM CELL ANTIGEN/CT
E4           0      1      ANTI-REJECTION/CT
E5           0      2      ANTI-REJECTION THERAPIES/CT

=> fil medl,caplus,biosis,embase,wpids,jicst;s (anti prostate stem cell
antigen or psca or prostate stem cell antigen)
COST IN U.S. DOLLARS                            SINCE FILE      TOTAL
                                                   ENTRY    SESSION
FULL ESTIMATED COST                                 0.60     449.71

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)      SINCE FILE      TOTAL
                                                   ENTRY    SESSION
CA SUBSCRIBER PRICE                                 0.00     -27.44

FILE 'MEDLINE' ENTERED AT 15:31:02 ON 05 SEP 2001
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FILE 'CAPLUS' ENTERED AT 15:31:02 ON 05 SEP 2001
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FILE 'BIOSIS' ENTERED AT 15:31:02 ON 05 SEP 2001
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FILE 'EMBASE' ENTERED AT 15:31:02 ON 05 SEP 2001
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FILE 'WPIDS' ENTERED AT 15:31:02 ON 05 SEP 2001
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FILE 'JICST-EPLUS' ENTERED AT 15:31:02 ON 05 SEP 2001
COPYRIGHT (C) 2001 Japan Science and Technology Corporation (JST)

L2 29 FILE MEDLINE
L3 84 FILE CAPLUS
L4 49 FILE BIOSIS
L5 25 FILE EMBASE
L6 15 FILE WPIDS
L7 9 FILE JICST-EPLUS

TOTAL FOR ALL FILES
L8 211 (ANTI PROSTATE STEM CELL ANTIGEN OR PSCA OR PROSTATE STEM CELL ANTIGEN)

=> s l8 and (mab or monoclonal antibod? or antibod? fragment or (chimer? or humaniz?)(w)antibod? or pta(w)(717 or 718 or 719 or 720 or 880 or 2265 or 2264))
L9 3 FILE MEDLINE
L10 11 FILE CAPLUS
L11 7 FILE BIOSIS
L12 4 FILE EMBASE
L13 4 FILE WPIDS
L14 0 FILE JICST-EPLUS

TOTAL FOR ALL FILES
L15 29 L8 AND (MAB OR MONOCLONAL ANTIBOD? OR ANTIBOD? FRAGMENT OR (CHIM
ER? OR HUMANIZ?)(W) ANTIBOD? OR PTA(W)(717 OR 718 OR 719 OR 720
OR 880 OR 2265 OR 2264))

=> s l15 and (growth inhibit? or cytotox? agent or toxin? or antibiotic? or radioactive? isotope? or nucleolytic enzyme or l1 or maytansinoid)
L16 0 FILE MEDLINE
L17 3 FILE CAPLUS
L18 1 FILE BIOSIS
L19 0 FILE EMBASE
L20 4 FILE WPIDS
L21 0 FILE JICST-EPLUS

TOTAL FOR ALL FILES
L22 8 L15 AND (GROWTH INHIBIT? OR CYTOTOX? AGENT OR TOXIN? OR ANTIBIOT
IC? OR RADIOACTIVE? ISOTOPE? OR NUCLEOLYTIC ENZYME OR L1 OR MAYTANSINOID)

=> s l15 and calicheamicin?
L23 0 FILE MEDLINE
L24 2 FILE CAPLUS
L25 0 FILE BIOSIS
L26 0 FILE EMBASE
L27 2 FILE WPIDS
L28 0 FILE JICST-EPLUS

TOTAL FOR ALL FILES
L29 4 L15 AND CALICHEAMICIN?

=> s l22 or l29
L30 0 FILE MEDLINE
L31 3 FILE CAPLUS
L32 1 FILE BIOSIS
L33 0 FILE EMBASE
L34 4 FILE WPIDS
L35 0 FILE JICST-EPLUS

TOTAL FOR ALL FILES
L36 8 L22 OR L29

=> dup rem l36
PROCESSING COMPLETED FOR L36
L37 6 DUP REM L36 (2 DUPLICATES REMOVED)

=> d 1-6 cbib abs

L37 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2001 ACS DUPLICATE 1
2001:417017 Document No. 135:45190 **Anti-prostate stem cell antigen (PSCA)** antibody compositions and methods of use. Devaux, Brigitte; Keller, Gilbert-andre; Koeppen, Hartmut; Lasky, Laurence A. (Genentech, Inc., USA). PCT Int. Appl. WO 2001040309 A2 20010607, 112 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 2000-US29603 20001027. PRIORITY: US 1999-PV162558 19991029; US 2000-PV182872 20000216.
AB The invention provides isolated **anti-prostate stem cell antigen (PSCA)** antibodies that internalize upon binding to **PSCA** on a mammalian in vivo. The invention also encompasses compns. comprising an anti-**PSCA**

antibody and a carrier. These compns. can be provided in an article of manuf. or a kit. Another aspect of the invention is an isolated nucleic acid encoding an anti-**PSCA** antibody, as well as an expression vector comprising the isolated nucleic acid. Also provided are cells that produce the anti-**PSCA** antibodies. The invention encompasses a method of producing the anti-**PSCA** antibodies. Other aspects of the invention are a method of killing a **PSCA**-expressing cancer cell, comprising contacting the cancer cell with an anti-**PSCA** antibody and a method of alleviating or treating a **PSCA** -expressing cancer in a mammal, comprising administering a therapeutically effective amt. of the anti-**PSCA** antibody to the mammal.

L37 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2001 ACS DUPLICATE 2
2001:63849 Document No. 134:130254 **PSCA: prostate stem cell antigen** and uses thereof. Reiter, Robert; Witte, Owen; Saffran, Douglas C.; Jakobovits, Aya (Regents of the University of California, USA; Urogenesys). PCT Int. Appl. WO 2001005427 A1 20010125, 229 pp. DESIGNATED STATES: W: AE, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 2000-US19967 20000720. PRIORITY: US 1999-359326 19990720; US 2000-564329 20000503.

AB The invention provides a novel prostate cell-surface antigen, designated **Prostate Stem Cell Antigen** (**PSCA**), which is widely over-expressed across all stages of prostate cancer, including high grade prostatic intraepithelial neoplasia (PIN), androgen-dependent and androgen-independent prostate tumors.

L37 ANSWER 3 OF 6 BIOSIS COPYRIGHT 2001 BIOSIS
2001:357271 Document No.: PREV200100357271. **Monoclonal antibody** against **prostate stem cell antigen** (**PSCA**) inhibits prostate cancer growth and metastasis in a murine xenograft model of prostate cancer. Palapattu, Ganesh (1); Gu, Zhennan (1); Saffran, Doug (1); Kono, Evelyn (1); Yamashiro, Joyce (1); Jakobvits, Aya (1); Reiter, Robert E. (1). (1) Los Angeles, CA USA. Journal of Urology, (May, 2001) Vol. 165, No. 5 Supplement, pp. 46. print. Meeting Info.: Annual Meeting of the American Urological Association, Inc. Anaheim, California, USA June 02-07, 2001 ISSN: 0022-5347. Language: English. Summary Language: English.

L37 ANSWER 4 OF 6 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 2000-412305 [35] WPIDS
AB WO 200032752 A UPAB: 20000725
NOVELTY - Nucleic acids (V) encoding **prostate stem cell antigens** (**PSCA**), the proteins they encode and anti-**PSCA** antibodies (II), are new.
DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the

following:

(1) a hybridoma (I) that produces a **monoclonal antibody** designated 1G8 (ATCC HB-12612), 2A2 (ATCC HB-12613), 2H9 (HB-12614), 3C5 (ATCC HB-12616), 3E6 (ATCC HB-12618), 3G3 (ATCC HB-12615) and 4A10 (ATCC HB-12617);

(2) an antibody (II) produced by (I);

(3) a Fab, F(ab')2 or Fv fragment (II') of (II);

(4) a recombinant protein (III) comprising the antigen binding region (ABR) of (II);

(5) a monoclonal anti-idiotypic antibody reactive with an idiotype on (II);

(6) a method (METH1) for detecting the presence of **prostate stem cell antigen (PSCA)** protein in a sample comprising contacting the sample with (II) (or (III)) and detecting the binding of the antibody with the **PSCA** protein in the sample;

(7) an immunoconjugate (IV) comprising the ABR of (II) (or (III)) joined to a therapeutic agent;

(8) a method (METH2) for monitoring the course of prostate cancer, bladder carcinomas and/or bone metastases of prostate cancer in a subject, comprising quantitatively detecting the presence of a **PSCA** protein in a sample by METH1 and comparing the amount determined with the amount present in a second sample from the subject (the samples are taken at different points in time and a difference in the amounts determined is indicative of the course of the cancer);

(9) a method (METH3) for monitoring the course of prostate cancer, bladder carcinomas and/or bone metastases of prostate cancer in a subject, comprising:

(a) detecting the presence of a nucleic acid encoding a **PSCA** protein in a sample by contacting the sample with the nucleic acid encoding a **PSCA** protein with the defined amino acid sequence given in the specification and detecting the binding of the nucleic acid to a constituent in the sample to form a complex (the complex indicates the presence of a nucleic acid encoding the **PSCA** protein in the sample);

(b) quantitatively determining the concentration of the **PSCA** RNA detected; and

(c) comparing the amount detected with the amount present in a second sample from the subject (the samples are taken at different points in time and a difference in the amounts detected is indicative of the course of prostate cancer);

(10) a method (METH4) for diagnosing prostate cancer, bladder carcinomas and bone metastases of prostate cancer in a subject, comprising quantitatively determining the number of cells in a cell sample associated with the **PSCA** protein using (II) (or (III)) and comparing the number of cells so determined to the amount in a sample from a normal subject (a measurable difference indicating the presence of the cancer);

(11) a method (METH5) for diagnosing prostate cancer, bladder carcinoma and bone metastases of prostate cancer in a subject, comprising quantitatively determining the amount of **PSCA** protein expressed by the cells in a cell sample from the subject using (II) (or (III)) and comparing the amount determined to the amount in a sample from a normal subject (a measurable difference indicates the presence of the cancer);

(12) a method (METH6) for diagnosing prostate cancer, bladder carcinomas and bone metastases of prostate cancer, comprising quantitatively determining the number of **PSCA** protein in a biological fluid sample using (II) (or (III)) and comparing the number determined to the amount in a biological fluid sample from a normal subject (a measurable difference indicates the presence of the cancer);

(13) a method (METH7) for diagnosing prostate cancer, bladder carcinomas and bone metastases of prostate cancer, comprising quantitatively determining the amount of RNA encoding **PSCA** protein in a sample using the nucleic acid encoding a **PSCA** protein comprising a defined amino acid sequence of human **PSCA** given in the specification and comparing the amount of RNA determined to the amount in a sample from a normal subject (a measurable difference indicates the presence of the cancer);

(14) a method (METH8) for determining the prognosis of a patient suffering from cancer, comprising monitoring the course of the cancer via METH2 or METH3 (an increase in the amount of **PSCA** in the same patient between different points in time is indicative of a poor prognosis);

(15) a method (METH8) for inhibiting a cell expressing **PSCA** antigens, comprising reacting (IV) with the cell;

(16) a method (METH9) for inhibiting the growth of a cancer cell associated with **PSCA** comprising contacting the cell with (II), (II') or (III) to form a complex which inhibits growth of the cell;

(17) a nucleic acid molecule (V) comprising a **PSCA** upstream regulatory region;

(18) a BglI-HindIII, BamHI-HindIII or KpnI-HindIII fragment of (V) as given in the specification;

(19) a vector (VI) comprising (V);

(20) a host-vector system (VII) comprising (VI) transfected into a compatible host cell;

(21) a method (METH9) for producing a gene product, comprising growing (VII) to produce the gene product and recovering the gene product produced;

(22) a protein produced by METH9;

(23) a transgenic animal (a mouse) having germ and somatic cells containing an introduced nucleic acid molecule comprising an oncogene linked to a **PSCA** upstream regulatory region (the nucleic acid expresses the oncogene in the mouse's tissues and induces tumor formation on the urogenital tissues (the nucleic acid was introduced into the mouse or it's ancestors at an embryonic stage); and

(24) a method (METH10) for killing prostate tumor cells, comprising introducing (VI) into the cells so that the vector expresses a protein that kills the tumor cells.

ACTIVITY - Cytostatic.

No relevant data given.

MECHANISM OF ACTION - Vaccine.

USE - The nucleic acids may be used diagnostically, according to

standard methods (e.g. polymerase chain reaction (PCR)), as probes to detect and quantify the presence of PSCA nucleic acids in samples derived from patients suspected of having prostate cancer, bladder carcinomas and/or bone metastases of prostate cancer. The may be used in this way to initially diagnose the disease and to prognose the patients condition and monitor the effectiveness of treatment. They may also be used for the recombinant expression of PSCA proteins both in vivo and in vitro. The proteins themselves may be used as antigens for the production of antibodies. The antibodies may also be used according to standard methods (e.g. enzyme linked immunosorbant assay (ELISA)) to detect and quantify the presence of PSCA proteins in samples and hence diagnose and prognose prostate cancer. The antibodies may also be used in the treatment of cancers associated with PSCA by inhibiting its expression.

Upstream regulatory regions from the PSCA nucleic acids may be fused to, and used to target and control the expression of other proteins that may be used to treat cancers such as diphtheria toxins and Pseudomonas exotoxins.

Dwg.0/47

L37 ANSWER 5 OF 6 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 2000-256984 [22] WPIDS
AB WO 200014234 A UPAB: 20000508

NOVELTY - Gene therapy for prostate cancer in humans by using the promoter (P1) for prostate specific transglutaminase gene operably linked to specific genes, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) An isolated nucleic acid (I) comprising between 20 and 1453 nucleotides of the 1453 nucleotide sequence (N1) given in the specification.

(2) an isolated nucleic acid (II) comprising a P1;

(3) a P1 isolated from N1;

(4) an expression vector comprising a P1 operably linked to a selected gene;

(5) a composition comprising an isolated nucleic acid sequence having the N1 sequence or an isolated nucleic acid complementary to the N1 sequence;

(6) a genetic vaccine comprising a P1 operably linked to a selected gene;

(7) a method for identifying a prostate specific promoter comprises:

(a) providing either a nucleic acid probe of a sequence selected from prostate specific transglutaminase such as cytokeratin 15 or semenoelin II or a nucleic acid probe of a sequence identical to or fully complementary with the sequence of N1;

(b) screening a human genomic library with the probe;

(c) identifying a clone that hybridizes under high stringency conditions with the probe; and

(d) confirming that the clone comprises a prostate specific promoter;

(8) a method of identifying protein binding factors for a prostate specific promoter comprises:

(a) providing an isolated, double-stranded nucleic acid molecule comprising the N1 sequence;
(b) providing nuclei from cells of prostate origin;
(c) extracting proteins from the nuclei;
(d) allowing the proteins to bind specifically to the nucleic acid molecule;
(e) removing unbound proteins;
(f) isolating proteins bound specifically to the nucleic acid molecule; and
(g) identifying the proteins;
(9) a method of identifying regulatory sequence within the promoter of prostate specific transglutaminase comprises:
(a) providing an isolated, double-stranded nucleic acid molecule comprising the N1 sequence;
(b) making at least one deletion mutant of the nucleic acid, where the deletion mutant is missing a portion of N1, where the portion is between 10 and 1350 basepairs in length;
(c) operably linking the deletion mutant to a reporter gene; and
(d) assaying the amount of expression of the reporter gene linked to the deletion mutant; where the presence of a regulatory sequence within the deleted portion of N1 is indicated by a change in the expression of the reporter gene, compared to the reporter gene operably linked to the full-length sequence of N1;
(10) a method of treating individuals with prostate cancer comprises:
(a) identifying regulatory protein that specifically binds to the promoter of prostate specific transglutaminase;
(b) identifying an activator or inhibitor of the regulatory protein; and
(c) providing an individual with prostate cancer an effective amount of the activator or inhibitor.
USE - P1 is useful in gene therapy of prostate cancers or benign prostatic hyperplasia (BPH) in humans.
Dwg.0/3

L37 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2001 ACS
1998:621237 Document No. 129:259319 **PSCA** or **prostate stem cell antigen** as prostate tumor marker.
Reiter, Robert; Witte, Owen (The Regents of the University of California, USA). PCT Int. Appl. WO 9840403 A1 19980917, 63 pp. DESIGNATED STATES: W: AU, BR, CA, IL, JP, KR, MX, NZ, SG; RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE. (English). CODEN: PIXXD2. APPLICATION: WO 1998-US4665 19980310. PRIORITY: US 1997-814279 19970310; US 1998-71141 19980112; US 1998-74675 19980213.
AB The invention provides a novel prostate-specific cell-surface antigen, designated **Prostate Stem Cell Antigen** (**PSCA**), which is widely over-expressed across all stages of prostate cancer, including high grade prostatic intraepithelial neoplasia (PIN), androgen-dependent and androgen-independent prostate tumors. The novel **PSCA** was identified and biochem. characterized, cDNA encoding murine **PSCA** homolog and human and murine **PSCA** genes were isolated, and **monoclonal antibodies** specific to different epitope of **PSCA** were generated.

```
=> s l8 and (cancer or carcinoma) and (prostate or bladder or lung)
L38          16 FILE MEDLINE
L39          28 FILE CAPLUS
L40          31 FILE BIOSIS
L41          16 FILE EMBASE
L42          11 FILE WPIDS
L43           0 FILE JICST-EPLUS

TOTAL FOR ALL FILES
L44         102 L8 AND (CANCER OR CARCINOMA) AND (PROSTATE OR BLADDER OR LUNG)

=> s l44 not l36
L45          16 FILE MEDLINE
L46          25 FILE CAPLUS
L47          30 FILE BIOSIS
L48          16 FILE EMBASE
L49           7 FILE WPIDS
L50           0 FILE JICST-EPLUS

TOTAL FOR ALL FILES
L51          94 L44 NOT L36

=> dup rem l51
PROCESSING COMPLETED FOR L51
L52          47 DUP REM L51 (47 DUPLICATES REMOVED)

=> d 1-47 cbib abs;s (cytotoxic agent or l1 or maytansinoid)

L52  ANSWER 1 OF 47  CAPLUS  COPYRIGHT 2001 ACS        DUPLICATE 1
2001:137049   Document No. 134:198023  Methods and materials for the treatment
     of prostatic carcinoma.  Seid, Christopher Allen; Singh,
     Gurpreet; Podolski, Joseph S. (Zonagen, Inc., USA).  PCT Int. Appl. WO
     2001012218 A1 20010222, 66 pp.  DESIGNATED STATES: W:  AU, CA, CN, JP;
RW:
     AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE.
     (English).  CODEN: PIXXD2.  APPLICATION: WO 2000-US6493 20000310.
     PRIORITY: US 1999-375092 19990816.
AB   The present invention relate generally to materials and methods for redn.
     and/or alleviation of prostatic and prostatic-related (metastatic)
     carcinoma via the administration of disclosed compns.,
     immunotherapeutic agents, or antibodies.

L52  ANSWER 2 OF 47  CAPLUS  COPYRIGHT 2001 ACS        DUPLICATE 2
2001:101291   Document No. 134:161880  cDNAs encoding the Flt-3 receptor
ligand
     and there use as adjuvants in vector vaccines.  Hermanson, Gary George
     (Vical Inc., USA).  PCT Int. Appl. WO 2001009303 A2 20010208, 148 pp.
     DESIGNATED STATES: W:  CA, JP, US; RW: AT, BE, CH, CY, DE, DK, ES, FI,
FR,
     GB, GR, IE, IT, LU, MC, NL, PT, SE.  (English).  CODEN: PIXXD2.
     APPLICATION: WO 2000-US20679 20000731.  PRIORITY: US 1999-PV146170
     19990730.
AB   A method of increasing the strength of the immune response of vector
     vaccines using an expression vector for the Flt3 ligand is described.
The
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vaccines are made of independent non-integrating expression vectors: one encodes the antigen or a cytokine and the other encodes the Flt3 ligand. The present invention also provides a method broadly directed to improving immune response of a vertebrate in need of immunotherapy by administering in vivo, into a tissue of a vertebrate, a Flt-3 ligand-encoding polynucleotide and one or more antigen- or cytokine-encoding polynucleotides. The polynucleotides are incorporated into the cells of the vertebrate in vivo, and a prophylactically or therapeutically effective amt. of a Flt-3 ligand and one or more antigens is produced in vivo.

L52 ANSWER 3 OF 47 CAPLUS COPYRIGHT 2001 ACS DUPLICATE 3
2001:502441 Document No. 135:106290 Antibodies to **prostate stem cell antigen**. Reiter, Robert E.; Witte, Owen N. (The Regents of the University of California, USA). U.S. US 6258939 B1 20010710, 60 pp., Cont.-in-part of U.S. Ser. No. 38,261. (English). CODEN: USXXAM. APPLICATION: US 1998-203939 19981202. PRIORITY: US 1997-814279 19970310; US 1998-PV71141 19980112; US 1998-PV74675 19980213; US 1998-38261 19980310.

AB The authors disclose the cloning and characterization of a **prostate** cell-surface antigen, designated **Prostate Stem Cell Antigen** (**PSCA**), which is widely over-expressed across all stages of **prostate cancer**, including high grade prostatic intraepithelial neoplasia (PIN), androgen-dependent and androgen-independent **prostate** tumors. In addn., the authors prepd. polyclonal and monoclonal antibodies to **PSCA**. In one example, the antibodies were to demonstrate bone metastases of **prostate cancer**. In a second, example, the over-expression of **PSCA** by **bladder carcinoma** was demonstrated.

L52 ANSWER 4 OF 47 CAPLUS COPYRIGHT 2001 ACS
2001:519376 Document No. 135:121192 Method for diagnosing **cancer** using specific **PSCA** antibodies. Reiter, Robert E.; Witte, Owen N. (Regents of the University of California, USA). U.S. US 6261791 B1 20010717, 83 pp., Cont.-in-part of U.S. Ser. No. 251,835. (English). CODEN: USXXAM. APPLICATION: US 1999-318503 19990525. PRIORITY: US 1997-814279 19970310; US 1998-PV71141 19980112; US 1998-PV74675 19980213; US 1998-38261 19980310; US 1998-203939 19981202; US 1999-251835 19990217.

AB The invention provides a novel **prostate** cell-surface antigen, designated **Prostate Stem Cell Antigen** (**PSCA**), which is widely over-expressed across all stages of **prostate cancer**, **bladder cancer** and bone metastasis of **prostate cancer**. Antibodies specific to **PSCA** are used for diagnosis of these **cancers**.

L52 ANSWER 5 OF 47 CAPLUS COPYRIGHT 2001 ACS
2001:519375 Document No. 135:121180 Methods for detecting the presence of a **PSCA** protein using **PSCA** antibodies. Reiter, Robert E.; Witte, Owen N. (Regents of the University of California, USA). U.S. US 6261789 B1 20010717, 67 pp., Cont.-in-part of U.S. Ser. No. 203,939. (English). CODEN: USXXAM. APPLICATION: US 1999-251835 19990217.

PRIORITY: US 1997-814279 19970310; US 1998-PV71141 19980112; US 1998-PV74675 19980213; US 1998-38261 19980310; US 1998-203939 19981202.

AB The invention provides methods for detecting the presence of a **prostate stem cell antigen** (**PSCA** protein) comprising contacting the sample with **PSCA** antibodies designated 1G8 (ATCC No. HB-12612), 2A2 (ATCC No. HB-12613), 2H9 (ATCC No. HB-12614), 3C5 (ATCC No. HB-12616), 3E6 (ATCC No. HB12618), 3G3 (ATCC No. HB-12615), or 4A10 (ATCC No. HB-12617). These monoclonal antibodies are labeled with radioisotope, enzyme, chromophore or fluorescer for diagnosis, prognosis and immunotherapy of **prostate cancer**.

L52 ANSWER 6 OF 47 MEDLINE DUPLICATE 4

2001431554 Document Number: 21371909. PubMed ID: 11479226. Murine six-transmembrane epithelial antigen of the **prostate**, **prostate stem cell antigen**, and **prostate**-specific membrane antigen: **prostate**-specific cell-surface antigens highly expressed in **prostate cancer** of transgenic adenocarcinoma mouse **prostate** mice. Yang D; Holt G E; Velders M P; Kwon E D; Kast W M. (Cancer Immunology Program, Cardinal Bernardin Cancer Center, Loyola University Chicago, 2160 S. First Avenue, Maywood, IL 60153, USA.) CANCER RESEARCH, (2001 Aug 1) 61 (15) 5857-60. Journal code: CNF; 2984705R. ISSN: 0008-5472. Pub. country: United States. Language: English.

AB To identify genes that are differentially up-regulated in **prostate cancer** of transgenic adenocarcinoma mouse **prostate** (TRAMP) mice, we subtracted cDNA isolated from mouse kidney and spleen from cDNA isolated from TRAMP-C1 cells, a **prostate** tumor cell line derived from a TRAMP mouse. Using this strategy, cDNA clones that were homologous to human six-transmembrane epithelial antigen of the **prostate** (STEAP) and **prostate stem cell antigen** (**PSCA**) were isolated. Mouse STEAP (mSteap) is 80% homologous to human STEAP at both the nucleotide and amino acid levels and contains six potential membrane-spanning regions similar to human STEAP. Mouse **PSCA** (mPsca) shares 65% homology with human **PSCA** at the nucleotide and amino acid levels. mRNA expression of mSteap and mPsca is largely **prostate**-specific and highly detected in primary **prostate** tumors and metastases of TRAMP mice. Both mSteap and mPsca map to chromosome 5. Another known gene coding for mouse **prostate**-specific membrane antigen (mPsma) is also highly expressed in both primary and metastatic lesions of TRAMP mice. These results indicate that the TRAMP mouse model can be used to effectively identify genes homologous to human **prostate**-specific genes, thereby allowing for the investigation of their functional roles in **prostate cancer**. mSteap, mPsca, and mPsma constitute new tools for preventative and/or therapeutic vaccine construction and immune monitoring in the TRAMP mouse model that may provide insights into the treatment of human **prostate cancer**.

L52 ANSWER 7 OF 47 CAPLUS COPYRIGHT 2001 ACS

2001:465907 Alternative pathways to **prostate carcinoma** activate **prostate stem cell antigen**

expression. Anon. Cancer Res., 61(12), 4935 (English) 2001. CODEN: CNREA8. ISSN: 0008-5472. Publisher: American Association for Cancer Research.
AB Unavailable

L52 ANSWER 8 OF 47 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.
2001265737 EMBASE Erratum: "Alternative pathways to **prostate carcinoma** activate **prostate stem cell antigen** expression" (**Cancer** Research (April 15, 2001) (3256-3261)). Dubey P.. Cancer Research 61/12 (4935) 15 Jun 2001. ISSN: 0008-5472. CODEN: CNREA8. Pub. Country: United States. Language: English.

L52 ANSWER 9 OF 47 MEDLINE DUPLICATE 5
2001365905 Document Number: 21299109. PubMed ID: 11406532.
Prostate stem cell antigen is overexpressed in human transitional cell **carcinoma**. Amara N; Palapattu G S; Schrage M; Gu Z; Thomas G V; Dorey F; Said J; Reiter R E. (Department of Urology, Jonsson Cancer Center, University of California-Los Angeles School of Medicine, Los Angeles, California 90095, USA.) CANCER RESEARCH, (2001 Jun 15) 61 (12) 4660-5. Journal code: CNF; 2984705R. ISSN: 0008-5472. Pub. country: United States. Language: English.
AB **Prostate stem cell antigen** (**PSCA**), a homologue of the Ly-6/Thy-1 family of cell surface antigens, is expressed by a majority of human **prostate cancers** and is a promising target for **prostate cancer** immunotherapy. In addition to its expression in normal and malignant **prostate**, we recently reported that **PSCA** is expressed at low levels in the transitional epithelium of normal **bladder**. In the present study, we compared the expression of **PSCA** in normal and malignant urothelial tissues to assess its potential as an immunotherapeutic target in transitional cell **carcinoma** (TCC). Immunohistochemical analysis of **PSCA** protein expression was performed on tissue sections from 32 normal **bladder** specimens, as well as 11 cases of low-grade transitional cell dysplasia, 21 cases of **carcinoma** in situ (CIS), 38 superficial transitional cell tumors (STCC, stages T(a)-T(1)), 65 muscle-invasive TCCs (ITCCs, stages T(2)-T(4)), and 7 **bladder cancer** metastases. The level of **PSCA** protein expression was scored semiquantitatively by assessing both the intensity and frequency (i.e., percentage of positive tumor cells) of staining. We also examined **PSCA** mRNA expression in a representative sample of normal and malignant human transitional cell tissues. In normal **bladder**, **PSCA** immunostaining was weak and confined almost exclusively to the superficial umbrella cell layer. Staining in CIS and STCC was more intense and uniform than that seen in normal **bladder** epithelium ($P < 0.001$), with staining detected in 21 (100%) of 21 cases of CIS and 37 (97%) of 38 superficial tumors. **PSCA** protein was also detected in 42 (65%) of 65 of muscle-invasive and 4 (57%) of 7 metastatic **cancers**, with the highest levels of **PSCA** expression (i.e., moderate-strong staining in >50% of tumor cells) seen in 32% of invasive and 43% of metastatic samples. Higher levels of **PSCA** expression correlated

with increasing tumor grade for both STCCs and ITCCs ($P < 0.001$). Northern blot analysis confirmed the immunohistochemical data, showing a dramatic increase in **PSCA** mRNA expression in two of five muscle-invasive transitional cell tumors when compared with normal samples. Confocal microscopy demonstrated that **PSCA** expression in TCC is confined to the cell surface. These data demonstrate that **PSCA** is overexpressed in a majority of human TCCs, particularly CIS and superficial tumors, and may be a useful target for **bladder cancer** diagnosis and therapy.

L52 ANSWER 10 OF 47 MEDLINE DUPLICATE 6

2001329375 Document Number: 21282703. PubMed ID: 11389052. Discovery of new markers of **cancer** through serial analysis of gene expression: **prostate stem cell antigen** is overexpressed in pancreatic adenocarcinoma. Argani P; Rosty C; Reiter R E; Wilentz R E; Murugesan S R; Leach S D; Ryu B; Skinner H G; Goggins M; Jaffee E M; Yeo C J; Cameron J L; Kern S E; Hruban R H. (Department of Pathology, The Johns Hopkins Medical Institutions, Baltimore, MD 21287, USA.. pargani@jhmi.edu) . CANCER RESEARCH, (2001 Jun 1) 61 (11) 4320-4. Journal code: CNF; 2984705R. ISSN: 0008-5472. Pub. country: United States. Language: English.

AB Serial analysis of gene expression (SAGE) can be used to quantify gene expression in human tissues. Comparison of gene expression levels in neoplastic tissues with those seen in nonneoplastic tissues can, in turn, identify novel tumor markers. Such markers are urgently needed for highly lethal **cancers** like pancreatic adenocarcinoma, which typically presents at an incurable, advanced stage. The results of SAGE analyses of a large number of neoplastic and nonneoplastic tissues are now available online, facilitating the rapid identification of novel tumor markers. We searched an online SAGE database to identify genes preferentially expressed in pancreatic **cancers** as compared with normal tissues. SAGE libraries derived from pancreatic adenocarcinomas were compared with SAGE libraries derived from nonneoplastic tissues. Three promising tags were identified. Two of these tags corresponded to genes (lipocalin and trefoil factor 2) previously shown to be overexpressed in pancreatic **carcinoma**, whereas the third tag corresponded to **prostate stem cell antigen** (**PSCA**), a recently discovered gene thought to be largely restricted to prostatic basal cells and prostatic adenocarcinomas. **PSCA** was expressed in four of the six pancreatic **cancer** SAGE libraries, but not in the libraries derived from normal pancreatic ductal cells. We confirmed the overexpression of the **PSCA** mRNA transcript in 14 of 19 pancreatic **cancer** cell lines by reverse transcription-PCR, and using immunohistochemistry, we demonstrated **PSCA** protein overexpression in 36 of 60 (60%) primary pancreatic adenocarcinomas. In 59 of 60 cases, the adjacent nonneoplastic pancreas did not label for **PSCA**. **PSCA** is a novel tumor marker for pancreatic **carcinoma** that has potential diagnostic and therapeutic implications. These results establish the validity of analyses of SAGE databases to identify novel tumor markers.

L52 ANSWER 11 OF 47 MEDLINE DUPLICATE 7

2001219148 Document Number: 21205816. PubMed ID: 11309275. Alternative pathways to **prostate carcinoma** activate **prostate stem cell antigen** expression. Dubey P; Wu H; Reiter R E; Witte O N. (Department of Microbiology, Howard Hughes Medical Institute, Los Angeles, CA 90095-1662, USA.) CANCER RESEARCH, (2001 Apr 15) 61 (8) 3256-61. Journal code: CNF; 2984705R. ISSN: 0008-5472. Pub. country: United States. Language: English.

AB **Prostate Stem Cell Antigen** (**PSCA**) is a glycosylphosphatidylinositol-anchored cell surface protein that is expressed in normal human **prostate** and overexpressed in human **prostate cancers**. To test whether different pathways that generate **prostate cancer** would affect **PSCA** expression, a murine model system was developed. Monoclonal antibodies were generated against murine **PSCA** (mPSCA). mPSCA is expressed on approximately 20% of cells in normal **prostate** epithelium, and this number decreases with increasing age. In the transgenic adenocarcinoma of the mouse **prostate** (TRAMP) model of **prostate cancer**, tumors develop between 19 and 25 weeks of age. Murine **PSCA** was strongly expressed on approximately 60% of the cells of TRAMP tumors, at an age where the number of **PSCA**+ cells and the level of expression of **PSCA** is very low in the normal **prostate**. Phosphatase and tensin homologue deleted on chromosome 10 (PTEN) +/- mice develop a number of different **cancers**, including **prostate cancer**. The incidence of **prostate cancer** is low and occurs after a relatively long latency. Fluorescence-activated cell sorter analysis of prostatic tissue from 11-18-month-old PTEN +/- mice showed elevated numbers of **PSCA**+ cells in the **prostate**, and immunohistochemical analysis showed high mPSCA expression in the tumors of these mice. Together, these results show that two distinct mechanisms of carcinogenesis lead to expression of a common target antigen.

L52 ANSWER 12 OF 47 CAPLUS COPYRIGHT 2001 ACS DUPLICATE 8

2001:176537 Document No. 134:324944 Anti-**PSCA** mAbs inhibit tumor growth and metastasis formation and prolong the survival of mice bearing human **prostate cancer** xenografts. Saffran, Douglas C.; Raitano, Arthur B.; Hubert, Rene S.; Witte, Owen N.; Reiter, Robert E.; Jakobovits, Aya (UroGenesys, Inc., Santa Monica, CA, 90404, USA). Proc. Natl. Acad. Sci. U. S. A., 98(5), 2658-2663 (English) 2001. CODEN: PNASA6. ISSN: 0027-8424. Publisher: National Academy of Sciences.

AB **Prostate stem-cell antigen** (**PSCA**) is a cell-surface antigen expressed in normal **prostate** and overexpressed in **prostate cancer** tissues. **PSCA** expression is detected in over 80% of patients with local disease, and elevated levels of **PSCA** are correlated with increased tumor stage, grade, and androgen independence, including high expression in bone metastases. We evaluated the therapeutic efficacy of anti-**PSCA** mAbs in human **prostate cancer** xenograft mouse models by using the androgen-dependent LAPC-9 xenograft and the androgen-independent recombinant cell line PC3-**PSCA**.

Two different anti-**PSCA** mAbs, 1G8 (IgG1.kappa.) and 3C5 (IgG2a.kappa.), inhibited formation of s.c. and orthotopic xenograft tumors in a dose-dependent manner. Furthermore, administration of anti-**PSCA** mAbs led to retardation of established orthotopic tumor growth and inhibition of metastasis to distant sites, resulting in a significant prolongation in the survival of tumor-bearing mice. These studies suggest **PSCA** as an attractive target for immunotherapy and demonstrate the therapeutic potential of anti-**PSCA** mAbs for the treatment of local and metastatic **prostate cancer**.

L52 ANSWER 13 OF 47 MEDLINE DUPLICATE 9
2001197933 Document Number: 21134051. PubMed ID: 11238029. Selective expression of murine **prostate stem cell antigen** in fetal and adult tissues and the transgenic adenocarcinoma of the mouse **prostate** model of **prostate** carcinogenesis. Ross S; Spencer S D; Lasky L A; Koeppen H. (Department of Pathology, Genentech, Inc., 1 DNA Way, South San Francisco, CA 94080, USA.
) AMERICAN JOURNAL OF PATHOLOGY, (2001 Mar) 158 (3) 809-16. Journal code:
3RS; 0370502. ISSN: 0002-9440. Pub. country: United States. Language: English.
AB **Prostate stem cell antigen** (**PSCA**) is a GPI-anchored membrane protein whose expression is reportedly up-regulated in a majority of human **prostate cancers**, including advanced stages and metastases. In this study, we investigate the expression pattern of the murine orthologue of **PSCA** by in situ hybridization in fetal and adult mouse tissues. Murine **PSCA** is expressed during fetal development in the urogenital sinus, skin, and gastrointestinal tract. The expression in these tissues is restricted to the most superficial cell layer. In the adult mouse, expression is highest in the mucosal lining of the urinary tract. In the normal adult **prostate**, expression of **PSCA** is detected exclusively in the secretory epithelium. Examination of **PSCA** during carcinogenesis of the murine **prostate** in the transgenic adenocarcinoma of the mouse **prostate** model showed a markedly increased expression in areas of neoplasia. The transgenic adenocarcinoma of the mouse **prostate** model may represent a valuable model for the study of **PSCA** as a potential target for immunotherapy of **prostate cancer**, despite potential differences in the pattern of expression between mice and humans.

L52 ANSWER 14 OF 47 BIOSIS COPYRIGHT 2001 BIOSIS
2001:376204 Document No.: PREV200100376204. Detection, numeration and characterization of isolated **prostate** tumor cells in blood of **cancer** patients. Loric, Sylvain (1); Mignon-Godefroy, Karine (1); Serru, Valerie (1); Vaubourdolle, Michel (1); Gala, Jean-Luc; Droupy, Stephane; Benoit, Gerard; Eschwege, Pascal. (1) Paris France. Journal of Urology, (May, 2001) Vol. 165, No. 5 Supplement, pp. 234. print. Meeting Info.: Annual Meeting of the American Urological Association, Inc. Anaheim, California, USA June 02-07, 2001 ISSN: 0022-5347. Language: English. Summary Language: English.

L52 ANSWER 15 OF 47 BIOSIS COPYRIGHT 2001 BIOSIS
2001:394425 Document No.: PREV200100394425. Murine steap, **PSCA** and

PSMA: Cell-surface antigens highly expressed in mouse **prostate cancer**. Yang, Damu (1); Holt, Gregory E. (1); Kwon, Eugene D. (1); Kast, W. Martin (1). (1) Loyola University Chicago, Maywood, IL USA. Proceedings of the American Association for Cancer Research Annual Meeting, (March, 2001) Vol. 42, pp. 160. print. Meeting Info.: 92nd Annual Meeting of the American Association for Cancer Research New Orleans, LA, USA March 24-28, 2001 ISSN: 0197-016X. Language: English. Summary Language: English.

L52 ANSWER 16 OF 47 BIOSIS COPYRIGHT 2001 BIOSIS
2001:119536 Document No.: PREV200100119536. Expression of **prostate stem cell antigen** in normal and malignant **prostate** tissues: An evaluation by in-situ hybridization on tissue microarrays. Ross, Sarajane (1); Tobin, Patti (1); Eberhard, David (1); Pham, Thinh (1); Hillan, Kenneth (1); Lasky, Larry (1); Koeppen, Hartmut (1). (1) Department of Pathology and Molecular Oncology, Genentech, Inc., South San Francisco, CA, 94080 USA. Laboratory Investigation, (January, 2001) Vol. 81, No. 1, pp. 121A. print. Meeting Info.: Annual Meeting of the United States and Canadian Academy of Pathology Atlanta, Georgia, USA March 03-09, 2001 ISSN: 0023-6837. Language: English. Summary Language: English.

L52 ANSWER 17 OF 47 BIOSIS COPYRIGHT 2001 BIOSIS
2001:357771 Document No.: PREV200100357771. **Prostate stem cell antigen (PSCA)** is overexpressed in human transitional cell **carcinoma**. Palapattu, Ganesh S. (1); Amara, Nordine (1); Gu, Zhennan (1); Thomas, George (1); Yamashiro, Joyce (1); Dorey, Fred (1); Said, Jonathan (1); Reiter, Robert E. (1). (1) Los Angeles, CA USA. Journal of Urology, (May, 2001) Vol. 165, No. 5 Supplement, pp. 112. print. Meeting Info.: Annual Meeting of the American Urological Association, Inc. Anaheim, California, USA June 02-07, 2001 ISSN: 0022-5347. Language: English. Summary Language: English.

L52 ANSWER 18 OF 47 BIOSIS COPYRIGHT 2001 BIOSIS
2001:377804 Document No.: PREV200100377804. **Prostate stem cell antigen (PSCA)** as a target for immunotherapy of advanced **prostate cancer**. Prikler, Ladislav; Dannull, Jens (1); Groettrup, Marcus (1); Diener, Pierre-Andre; Cerny, Thomas; Schmid, Ulrico; Ackermann, Daniel. (1) Department of Laboratory Research, Cantonal Hospital St. Gallen, 9007, Saint Gallen Switzerland. European Urology, (March, 2001) Vol. 39, No. Suppl. 5, pp. 45. print. Meeting Info.: XVIth Congress of the European Association of Urology Geneva, Switzerland April 07-10, 2001 ISSN: 0302-2838. Language: English. Summary Language: English.

L52 ANSWER 19 OF 47 MEDLINE DUPLICATE 10
2001276837 Document Number: 21261656. PubMed ID: 11368875. **PSCA** expression is regulated by phorbol ester and cell adhesion in the **bladder carcinoma** cell line RT112. Bahrenberg G; Brauers A; Joost H G; Jakse G. (Institute of Pharmacology and Toxicology, Medical School of the Technical University RWTH Aachen, Wendlingweg 2, D-52057, Aachen, Germany.. gregor.bahrenberg@post.rwth-aachen.de) . CANCER LETTERS, (2001 Jul 10) 168 (1) 37-43. Journal code: CMX; 7600053. ISSN: 0304-3835.

Pub. country: Ireland. Language: English.
AB The expression of the surface protein **prostate stem cell antigen** (**PSCA**) in **prostate carcinoma** increases in parallel with the progression of the tumor. In contrast, we have recently shown that **PSCA** expression is reduced or undetectable in other types of undifferentiated tumors. To elucidate the cellular mechanisms that underlie this complex pattern of expression, we studied regulatory parameters for **PSCA** expression in the **bladder carcinoma** cell line RT112 by Northern analysis. **PSCA** gene expression was stimulated by a culture dish surface that caused aggregation of cells, suggesting that its expression is regulated by mechanisms related to the adhesion of epithelial cells. Phorbol ester markedly stimulated **PSCA** gene expression in a cycloheximide- and actinomycin-inhibitable manner after a lag phase of 10 h, indicating that transcription of the **PSCA** gene is regulated by protein kinase C and a newly synthesized protein. In contrast, epidermal growth factor, platelet-derived growth factor (PDGF)-BB, tumor necrosis factor-alpha, interferon-gamma or a slightly lowered pH failed to increase **PSCA** mRNA levels. Consistent with the variable expression of **PSCA** in different tumors, our analysis in RT112 cells shows that its expression is controlled by a strongly inducible promoter that is specifically regulated by extracellular signals.

L52 ANSWER 20 OF 47 BIOSIS COPYRIGHT 2001 BIOSIS
2000:91289 Document No.: PREV200000091289. RE: Detection of circulating **prostate** specific antigen expressing prostatic cells in the bone marrow of radical prostatectomy patients by sensitive reverse transcriptase polymerase chain reaction (and reply. Gao, C.-L.; Dean, R. C.; Pinto, A.; Mooneyhan, R.; Connelly, R. R.; McLeod, D. G.; Srivastava, S.; Moul, J. W.; Mannello, F. (1); Malatesta, M. (1); Gazzanelli, G. (1). (1) Facolta SMFN, Istituto di Istologia ed Analisi Laboratorio, Universita degli Studi Urbino, Urbino Italy. Journal of Urology, (Jan., 2000) Vol. 163, No. 1, pp. 253. ISSN: 0022-5347. Language: English.

L52 ANSWER 21 OF 47 CAPLUS COPYRIGHT 2001 ACS
2000:384381 Document No. 133:42165 **Prostate stem cell antigen** (**PSCA**) and its diagnostic and immunotherapeutic uses. Reiter, Robert; Witte, Owen (The Regents of the University of California, USA). PCT Int. Appl. WO 2000032752 A1 20000608, 171 pp. DESIGNATED STATES: W: AU, CA, JP; RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE. (English). CODEN: PIXXD2. APPLICATION: WO 1999-US28883 19991202. PRIORITY: US 1998-203939 19981202; US 1999-251835 19990217; US 1999-318503 19990525.
AB The invention provides a novel **prostate** cell-surface antigen, designated **Prostate Stem Cell Antigen** (**PSCA**), which is widely over-expressed across all stages of **prostate cancer**, including high grade prostatic intraepithelial neoplasia (PIN), androgen-dependent and androgen-independent **prostate** tumors. The **PSCA** gene shows 30% homol. to stem cell antigen-2 (SCA-2), a member of the Thy-1/Ly-6 family of glycosylphosphatidylinositol (GPI)-anchored cell surface antigens, and encodes a 123-amino acid protein with an N-terminal

signal sequence, a C-terminal GPI-anchoring sequence, and multiple N-glycosylation sites. **PSCA** mRNA expression is highly upregulated in both androgen-dependent and androgen-independent **prostate cancer** xenografts. In situ mRNA anal. localizes **PSCA** expression to the basal cell epithelium, the putative stem cell compartment of the **prostate**. Flow cytometric anal. demonstrates that **PSCA** is expressed predominantly on the cell surface and is anchored by a GPI linkage. Fluorescent in situ hybridization anal. localizes the **PSCA** gene to chromosome 8q24.2, a region of allelic gain in >80% of **prostate cancers**. **PSCA** may be an optimal therapeutic target in view of its cell surface location, and greatly upregulated expression in certain types of **cancer** such as **prostate cancer** cells. The invention also provides antibodies to **PSCA**, which can be used therapeutically to destroy such **prostate cancer** cells. In addn., **PSCA** proteins and **PSCA**-encoding nucleic acid mols. may be used in various immunotherapeutic methods to promote immune-mediated destruction of **prostate** tumors. Further, methods of detection/diagnosis and treatment, as well as a transgenic animal are provided.

L52 ANSWER 22 OF 47 CAPLUS COPYRIGHT 2001 ACS
2000:175933 Document No. 132:218023 **Prostate**-specific promoter for the regulation of gene expression and gene therapy of **prostate** diseases. An, Gang; Veltri, Robert (Urocor, Inc., USA). PCT Int. Appl. WO 2000014234 A1 20000316, 154 pp. DESIGNATED STATES: W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 1999-US20544 19990907. PRIORITY: US 1998-99338 19980908.

AB Disclosed are compns. and methods of use of the promoter for **prostate**-specific transglutaminase. **Prostate**-specific transglutaminase, as well as cytokeratin 15 and semenogelin II are differentially expressed in **prostate** disorders. **Prostate**-specific expression and dramatic down-regulation in high Gleason grade and metastatic **prostate cancer** make the **prostate**-specific transglutaminase gene specifically useful in the treatment of **prostate** disease. The invention relates particularly to isolated nucleic acids and vectors comprising the sequence of this promoter. The invention also relates to methods of therapeutic treatment for **prostate cancer** or benign prostatic hyperplasia (BPH) utilizing this promoter. Described are means for the isolation and identification of transcriptional factors and other DNA-binding proteins that regulate promoter transcriptional activity, identification of regulatory elements within the promoter and construction of deletion mutants contg. specific subsets of these regulatory elements, identification of small mol. ligands that bind to and inhibit or activate the identified transcriptional factors and other DNA-binding proteins,

construction of vectors contg. the **prostate**-specific transglutaminase promoter operatively linked to genes of use in the treatment of **prostate cancer** or BPH, and methods for treatment of **prostate cancer** or BPH by administration of such vectors to patients with **prostate cancer** or BPH. Further described are methods for treatment of **prostate cancer** or BPH by administration of small mol. ligands that bind to and inhibit or activate transcriptional factors or other DNA-binding proteins that regulate the activity of this promoter.

L52 ANSWER 23 OF 47 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 2000-687101 [67] WPIDS
AB WO 200062800 A UPAB: 20001223
NOVELTY - An adjuvant composition (I) comprising a saponin and an immunostimulatory oligonucleotide.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) a vaccine composition (II) comprising (I) and an antigen;

(2) a delivery device pre-filled with (II) designed to administer the vaccine systemically;

(3) use of a vaccine as a medicament;

(4) use of a combination of saponin and CpG molecule (immunostimulatory oligonucleotides containing unmethylated CpG dinucleotides) in the manufacture of a vaccine for the prophylaxis and treatment of viral, bacterial and parasitic infections, allergy, **cancer** or other chronic disorders;

(5) making (I) involves admixing a saponin with an immunostimulatory oligonucleotide and optionally a carrier; and

(6) making (II) involves admixing saponin, immunostimulatory oligonucleotide, an antigen and optionally a carrier.

ACTIVITY - Cytostatic; antiallergic; antiatherosclerotic; nootropic; neuroprotective; antibacterial; antiviral; antiparasitic.

MECHANISM OF ACTION - Vaccine. The biological activity of (II) was tested in mice. Female Balb/c mice (5 animals per group), aged 8 weeks, were immunized intramuscularly with lipo-OspA (1 mu g) formulated onto alum (50 mu g). After 3 months, the mice were boosted intranasally with a solution containing 5 mu g lipo-OspA in either A, B, C, D or E.

(A) PBS;

(B) 20 mu g CpG 1001 (TCC ATG AGC TTC CTG ACG TT, Kreig 1826);

(C) 5 micro g QS21;

(D) 20 micro g CpG 1001 + 5 micro g QS21; or

(E) by intramuscular injection of 1 micro g lipo-OspA absorbed onto alum (50 micro g).

OspA-specific serum IgG in mice was measured by enzyme linked immunoabsorbant assay (ELISA). CpG as well as QS21 significantly improved the intranasal boosting of systemic antibodies to Lipo-OspA. Moreover, when both adjuvants were combined, a synergistic effect of those responses was clearly demonstrated, especially in terms of LA2 antibodies. Humoral responses elicited in the presence of QS21 and CpG were significantly higher than those induced by the parenteral booster.

USE - A vaccine composition containing (I) administered systemically, is useful for inducing an immune response in an individual and for

preventing or treating an individual susceptible to or suffering from a disease. Diseases include **prostate**, breast, colorectal, **lung**, pancreatic, renal, ovarian or melanoma **cancers**; non-**cancer** chronic disorders such as allergy, Alzheimer and atherosclerosis. The vaccine is useful for prophylaxis and treatment of viral, bacterial and parasitic infections too (claimed). Dwg.0/12

L52 ANSWER 24 OF 47 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 2000-687067 [67] WPIDS
AB WO 200062063 A UPAB: 20001223
NOVELTY - Detecting (M1) metastatic potential, diagnosing metastatic **prostate cancer** or determining the prognosis of a subject with **prostate cancer** comprising identifying the **prostate** cell in a body fluid sample and detecting the expression of flt-4 in the cell.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) treating, inhibiting or preventing (M2) a secondary **prostate** tumor metastasis, comprising administering a molecule inhibiting flt-4 expression or activity;

(2) screening for inhibitor molecules for treating, inhibiting or preventing secondary **prostate** tumor metastasis comprising contacting a **prostate** cell expressing flt-4 with a candidate molecule and detecting a lower level of flt-4 expression compared to the level in uncontacted cells;

(3) screening for inhibitor molecules for treating, inhibiting or preventing a secondary **prostate** tumor metastasis comprising comparing the levels of complex formed from flt-4 and vascular endothelial growth factor (VEGF)-C or VEGF-D in the presence of a candidate molecule and the levels of complex formed in the presence and absence of the molecule, where a lower level of complex in the presence of molecule indicates that the candidate molecule has inhibitory activity;

(4) monitoring the efficacy of a method (I) of treatment or inhibition of metastatic **prostate cancer** comprising measuring the level of expression or activity of flt-4 in **prostate** cells, where the sample is taken from the subject after the application of (I) and compared to the level in a sample taken from the subject prior to the application of (I) or compared to a standard level associated with pretreatment stage of metastatic **prostate cancer**, in which a decrease in level of flt-4 expression or activity in the sample taken after application of (I) relative to the level of flt-4 before application of (I) or the standard level indicates that (I) is effective; and

(5) a pharmaceutical composition comprising an inhibitor molecule.

ACTIVITY - Cytostatic.

MECHANISM OF ACTION - Inhibitor of flt-4 binding to VEGF (claimed); gene therapy.

(IIc) is tested for inhibiting the expression of VEGF and its receptors flk-1 and flt-1 and VEFG-C and its receptor flt-4 inhibited the growth of the hormone independent human **prostate cancer** cell line PC-3, a cell line derived from a **prostate** tumor metastasis. PC-3 cells were seeded at 2000 cells/well in a 96 well plate

or seeded at 20,000 cells/well in a 24 well plate in serum free X-VIVO medium. Antisense oligonucleotides (oligos) were added to the cells at increasing concentrations of 1-100 micro M. Media and oligos were refreshed every third day and the cultures were maintained for 14 days. Viable cells were quantitated either by hemacytometer cell-counting or by a MTS 96-well viable cell assay. Cell proliferation using the MTS assay was expressed as a percentage of control. The cells showed that the growth inhibition was generally maximal at 5-10 micro M. Repression of flt-1 and flt-4 expression had the greatest inhibitory effect on PC-3 cell growth, approximately 50%, followed by VEGF-C, approximately 2-30%. Anti-VEGF and anti-flk-1oligos inhibited growth by approximately 20% as compared to control oligo. These results demonstrate that anti-flt-4 and anti-VEGF-C antisense oligonucleotides are effective for inhibiting or suppressing **prostate cancer** metastases.

USE - To detect metastatic potential, diagnose metastatic **prostate cancer** or determine the prognosis of a subject with **prostate cancer** (claimed). The pharmaceutical composition comprising an inhibitor molecule is useful for preventing or treating secondary **prostate** tumor metastates.

Dwg.0/6

L52 ANSWER 25 OF 47 MEDLINE DUPLICATE 11

2001077218 Document Number: 21002537. PubMed ID: 11118033. WISH-PC2: a unique xenograft model of human prostatic small cell **carcinoma**.

Pinthus J H; Waks T; Schindler D G; Harmelin A; Said J W; Belldegrun A; Ramon J; Eshhar Z. (Department of Immunology, The Weizmann Institute of Science, Rehovot, Israel.) CANCER RESEARCH, (2000 Dec 1) 60 (23) 6563-7. Journal code: CNF. ISSN: 0008-5472. Pub. country: United States. Language: English.

AB Prostatic small cell **carcinoma** is an aggressive subtype of **prostate cancer** that usually appears as a progression of the original adenocarcinoma. We describe here the WISH-PC2, a novel neuroendocrine xenograft of small cell **carcinoma** of the **prostate**. This xenograft was established from a poorly differentiated **prostate** adenocarcinoma and is serially transplanted in immune-compromised mice where it grows within the **prostate**, liver, and bone, inducing osteolytic lesions with foci of osteoblastic activity. It secretes to the mouse Chromogranin A and expresses **prostate** plasma **carcinoma** tumor antigen-1, six-transmembrane epithelial antigen of the **prostate**, and members of the Erb-B receptor family. It does not express **prostate**-specific antigen, **prostate stem cell antigen**, **prostate**-specific membrane antigen, and androgen receptor, and it grows independently of androgen. Altogether, WISH-PC2 provides an unlimited source in which to study the involvement of neuroendocrine cells in the progression of prostatic adenocarcinoma and can serve as a novel model for the testing of new therapeutic strategies for prostatic small cell **carcinoma**.

L52 ANSWER 26 OF 47 MEDLINE DUPLICATE 12

2000485437 Document Number: 20486910. PubMed ID: 11034097.

Prostate stem cell antigen is a

promising candidate for immunotherapy of advanced **prostate cancer**. Dannull J; Diener P A; Prikler L; Furstenberger G; Cerny T; Schmid U; Ackermann D K; Groettrup M. (Department of Laboratory Research, Cantonal Hospital St Gall, Gallen, Switzerland.) CANCER RESEARCH, (2000 Oct 1) 60 (19) 5522-8. Journal code: CNF. ISSN: 0008-5472. Pub. country: United States. Language: English.

AB Immunotherapy of **prostate cancer** (CaP) may be a promising novel treatment option for the management of advanced CaP. However, the lack of suitable tumor antigens remains a major obstacle for the rational design of vaccines. To characterize potential CaP antigens, we determined the mRNA expression of the **prostate**-specific genes C1, C2, C5, PAGE-1, and **prostate stem cell antigen** (**PSCA**) in hormone-refractory CaP, benign prostatic hyperplasia, CaP cell lines, and CaP specimens. Among these gene products, only expression of **PSCA** appears to be retained in the majority of advanced CaP samples, as shown by reverse transcription-PCR analyses. Peptide fragments of **PSCA** presented in the context of major histocompatibility molecules could serve as recognition targets for CD8 T cells, provided these lymphocytes were not clonally deleted or peripherally tolerized. Our goal was to determine whether the human T-cell repertoire could recognize **PSCA**-derived peptide epitopes in the context of a common class I allele, HLA-A0201. Of nine peptides that, according to HLA-A0201 binding motifs, were candidate ligands of A0201 class I molecules, three peptides were able to stabilize HLA-A0201 molecules on the cell surface. One of the latter peptides, encompassing amino acid residues 14-22, was capable of generating a **PSCA**-specific T-cell response in a human lymphocyte culture from a patient with metastatic CaP. **PSCA**-specific CTLs recognized peptide-pulsed targets as well as three **prostate carcinoma** lines in cytotoxicity assays, indicating that this peptide could be endogenously processed. In conclusion, our findings establish **PSCA** as a potential target for antigen-specific, T cell-based immunotherapy of **prostate carcinoma**.

L52 ANSWER 27 OF 47 MEDLINE DUPLICATE 13
2000180504 Document Number: 20180504. PubMed ID: 10713670.
Prostate stem cell antigen (**PSCA**) expression increases with high gleason score, advanced stage and bone metastasis in **prostate cancer**. Gu Z; Thomas G; Yamashiro J; Shintaku I P; Dorey F; Raitano A; Witte O N; Said J W; Loda M; Reiter R E. (Department of Urology, University of California, Los Angeles, California, CA 90095, USA.) ONCOGENE, (2000 Mar 2) 19 (10) 1288-96. Journal code: ONC; 8711562. ISSN: 0950-9232. Pub. country: ENGLAND: United Kingdom. Language: English.

AB **Prostate stem cell antigen** (**PSCA**) is a recently defined homologue of the Thy-1/Ly-6 family of glycosylphosphatidylinositol (GPI)-anchored cell surface antigens. **PSCA** mRNA is expressed in the basal cells of normal **prostate** and in more than 80% of **prostate cancers**. The purpose of the present study was to examine **PSCA** protein expression in clinical specimens of human **prostate cancer**. Five monoclonal antibodies were raised against a **PSCA**-GST fusion protein and screened for their ability

to recognize **PSCA** on the cell surface of human **prostate cancer** cells. Immunohistochemical analysis of **PSCA** expression was performed on paraffin-embedded sections from 25 normal tissues, 112 primary **prostate cancers** and nine **prostate cancers** metastatic to bone. The level of **PSCA** expression in **prostate** tumors was quantified and compared with expression in adjacent normal glands. The antibodies detect **PSCA** expression on the cell surface of normal and malignant **prostate** cells and distinguish three extracellular epitopes on **PSCA**. **Prostate** and transitional epithelium reacted strongly with **PSCA**. **PSCA** staining was also seen in placental trophoblasts, renal collecting ducts and neuroendocrine cells in the stomach and colon. All other normal tissues tested were negative. **PSCA** protein expression was identified in 105/112 (94%) primary **prostate** tumors and 9/9 (100%) bone metastases. The level of **PSCA** expression increased with higher Gleason score (P=0.016), higher tumor stage (P=0.010) and progression to androgen-independence (P=0. 021). Intense, homogeneous staining was seen in all nine bone metastases. **PSCA** is a cell surface protein with limited expression in extraprostatic normal tissues. **PSCA** expression correlates with tumor stage, grade and androgen independence and may have prognostic utility. Because expression on the surface of **prostate cancer** cells increases with tumor progression, **PSCA** may be a useful molecular target in advanced **prostate cancer**
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L52 ANSWER 28 OF 47 MEDLINE DUPLICATE 14
2000499338 Document Number: 20431743. PubMed ID: 10973799. Reduced expression of **PSCA**, a member of the LY-6 family of cell surface antigens, in **bladder**, esophagus, and stomach tumors. Bahrenberg G; Brauers A; Joost H G; Jakse G. (Institut fur Pharmakologie und Toxikologie, RWTH Aachen, Aachen, D-52057, Germany.. gregor.bahrenberg@post.rwth-aachen.de) . BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS, (2000 Sep 7) 275 (3) 783-8. Journal code: 9Y8; 0372516. ISSN: 0006-291X. Pub. country: United States. Language: English.

AB **Prostate stem cell antigen** (**PSCA**) is a member of the LY-6 family of surface proteins that is overexpressed in **prostate cancer**. Using serial analysis of gene expression (SAGE), we identified **PSCA** as one of the most abundant transcripts in a differentiated urothelial tumor. As assessed by Northern blotting, **PSCA** is highly expressed in normal urothelium and noninvasive urothelial tumors. In contrast to the previously reported overexpression of **PSCA** in progressive and invasive forms of **prostate cancer**, we found a markedly reduced expression in undifferentiated **bladder carcinoma** . In addition, several aberrant splicing products derived from the **PSCA** gene were found in urothelial tumors. Furthermore, **PSCA** mRNA was highly abundant in normal esophagus and stomach, but was undetectable in esophageal or gastric tumors. The **PSCA** expression appeared to depend on cell contact, since mRNA levels were increased when RT112 **bladder carcinoma** cells were grown to confluence. Our data suggest that **PSCA** could serve as a potential marker for the early carcinogenesis in urothelial and gastric tissues and that its expression is specific for epithelial cells.

Copyright 2000 Academic Press.

L52 ANSWER 29 OF 47 CAPLUS COPYRIGHT 2001 ACS
2000:450922 Document No. 134:84692 Target antigens for **prostate cancer** immunotherapy. Saffran, Douglas C.; Reiter, Robert E.; Jakobovits, Aya; Witte, Owen N. (UroGenesys, Inc., Santa Monica, CA, USA).
Cancer Metastasis Rev., Volume Date 1999, 18(4), 437-449 (English) 2000. CODEN: CMRED4. ISSN: 0167-7659. Publisher: Kluwer Academic Publishers.
AB A review with 103 refs. The detection and treatment of **prostate cancer** has been markedly improved by the use of **prostate** -specific antigen (PSA) as a serol. biomarker for disease. However, even after surgical intervention and hormone ablation therapy, a significant proportion of patients progress to advanced metastatic disease, for which there is no cure. An important goal has become the identification of antigens in advanced stage **prostate cancer** that represent targets for therapy. Recently, great progress has been made to utilize immunol. therapies to treat **cancer**. Monoclonal antibody therapy has been successfully approved for the treatment of breast **cancer** and B-cell lymphoma, and multiple clin. trails are currently in progress in a variety of **cancers**, including **prostate cancer**. Pre-clin. and clin. studies are also underway to evaluate **cancer** vaccine approaches directed against antigens that are highly expressed in **prostate** and other **cancers**. This article describes several target antigens expressed in **prostate cancer** and immunol. approaches directed against them that may be effective for treating **prostate cancer** patients.

L52 ANSWER 30 OF 47 MEDLINE DUPLICATE 15
2001095646 Document Number: 20528162. PubMed ID: 11074613. Blood and serum substances for markers of **prostate cancer**.
Bangma C H; Verhagen P C. (Department of Urology, Erasmus University and Academic Hospital, 3015 GD Rotterdam, The Netherlands.. Bangma@urol.azr.nl) . MICROSCOPY RESEARCH AND TECHNIQUE, (2000 Dec 1) 51 (5) 430-5. Ref: 16. Journal code: BAG. ISSN: 1059-910X. Pub. country: United States. Language: English.
AB Serummarkers for **prostate carcinoma** are widely applied for the purpose of early detection of **cancer** and the differentiation between benign and malignant disease, for the pre-treatment staging of detected prostatic **cancers**, and for the monitoring of **prostate cancer** after curative or palliative therapies. This review illustrates the limitations of current markers for prostatic disease in blood en serum. It gives an overview of what is known about PSA and its isoforms, hK2, PSMA, and **PSCA**, and discusses, based on this information, in what direction current research is developing in order to improve these markers.
Copyright 2000 Wiley-Liss, Inc.

L52 ANSWER 31 OF 47 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.
2001034092 EMBASE What's hot in the **prostate**?. Belldegrun A.. . tprinz@urology.medsch.edu. Prostate Cancer and Prostatic Diseases 3/4 (213-216) 2000.
ISSN: 1365-7852. CODEN: PCPDFW. Pub. Country: United Kingdom. Language: English.

L52 ANSWER 32 OF 47 BIOSIS COPYRIGHT 2001 BIOSIS
2000:201371 Document No.: PREV200000201371. **Prostate stem cell antigen** is overexpressed in a majority of **bladder cancers**. Amara, Nordine (1); Thomas, George (1); Said, Jonathan (1); Reiter, Robert E. (1). (1) Los Angeles, CA USA. Journal of Urology, (April, 2000) Vol. 163, No. 4 Suppl., pp. 125-126. Meeting Info.: 95th Annual Meeting of the American Urological Association, Inc. Atlanta, Georgia, USA April 29, 2000-May 04, 1999 ISSN: 0022-5347. Language: English. Summary Language: English.

L52 ANSWER 33 OF 47 BIOSIS COPYRIGHT 2001 BIOSIS
2000:512869 Document No.: PREV200000512869. **Prostate stem cell antigen** (**PSCA**) expression correlates with high Gleason score, advanced stage and bone metastases in **prostate cancer**. Thomas, G.; Gu, Z.; Yamashiro, J.; Amara, N.; Shintaku, P.; Dorey, F.; Raitano, A.; Witte, O.; Said, J.; Loda, M.; Reiter, R.. Laboratory Investigation, (March, 2000) Vol. 80, No. 3, pp. 116A. print. Meeting Info.: Annual Meeting of the United States and Canadian Academy of Pathology New Orleans, Louisiana, USA March 25-31, 2000 ISSN: 0023-6837. Language: English. Summary Language: English.

L52 ANSWER 34 OF 47 BIOSIS COPYRIGHT 2001 BIOSIS
2000:159034 Document No.: PREV200000159034. **Prostate Stem Cell Antigen** (**PSCA**) expression correlates with high Gleason score, advanced stage and bone metastases in **prostate cancer**. Thomas, G. (1); Gu, Z. (1); Yamashiro, J. (1); Amara, N. (1); Shintaku, P. (1); Dorey, F. (1); Raitano, A. (1); Witte, O. (1); Said, J. (1); Loda, M. (1); Reiter, R. (1). (1) Center for Health Sciences, UCLA, Los Angeles, CA USA. Laboratory Investigation., (Jan., 2000) Vol. 80, No. 1, pp. 107A. Meeting Info.: 2000 Annual Meeting United States and Canadian Academy of Pathology. New Orleans, Louisiana, USA March 25-31, 2000 ISSN: 0023-6837. Language: English. Summary Language: English.

L52 ANSWER 35 OF 47 BIOSIS COPYRIGHT 2001 BIOSIS
2000:368385 Document No.: PREV200000368385. Monoclonal antibodies against **prostate stem cell antigen** inhibit **prostate cancer** tumour formation in SCID mice. Amara, Nordine (1); Gu, Zhennan (1); Dorey, Frederic (1); Reiter, Robert (1). (1) Department of Urology, UCLA School of Medicine, Los Angeles, CA USA. European Urology, (March, 2000) Vol. 37, No. Suppl. 2, pp. 105. print. Meeting Info.: XVth Congress of the European Association of Urology Brussels, Belgium April 12-15, 2000 ISSN: 0302-2838. Language: English. Summary Language: English.

L52 ANSWER 36 OF 47 MEDLINE DUPLICATE 16
2000031600 Document Number: 20031600. PubMed ID: 10564591. Coamplification of **prostate stem cell antigen** (**PSCA**) and MYC in locally advanced **prostate cancer**. Reiter R E; Sato I; Thomas G; Qian J; Gu Z; Watabe T; Loda M; Jenkins R B. (Department of Urology, University of

California, Los Angeles, CA 90095, USA.. rreiter@urology.medsch.ucla.edu) . GENES, CHROMOSOMES AND CANCER, (2000 Jan) 27 (1) 95-103. Journal code: AYV; 9007329. ISSN: 1045-2257. Pub. country: United States. Language: English.

AB Gain of sequences on chromosome arm 8q is a common feature of **prostate cancer** that may correlate with metastatic and androgen-independent progression. The target gene(s) for this gain is not known, although MYC is amplified in a subset of advanced tumors and is one potential candidate. **Prostate stem cell antigen** (**PSCA**) is a **prostate**-specific cell surface protein that maps to chromosome region 8q24.2 and is overexpressed in **prostate cancer**. Our aim in this study was to test the hypothesis that **PSCA** overexpression may result from overrepresentation of chromosome arm 8q. Twenty locally advanced **prostate cancers** were analyzed by dual-probe fluorescence in situ hybridization (FISH) for alterations of MYC and **PSCA**. Extra copies of MYC were found in 12/20 (60%) tumors, including 5 (25%) with simple gain (no increase in MYC copy number relative to the chromosome 8 centromere) and 7 (35%) with an additional increase (AI or overrepresentation) in MYC copy number relative to the centromere. In the five cases with simple gain of MYC, there was a concomitant gain of **PSCA**. **PSCA** was overrepresented in 5/7 (71%) cases with AI of MYC. Immunohistochemical staining of the 20 tumors with monoclonal antibodies specific for **PSCA** showed a high degree of correlation between **PSCA** gene overrepresentation and protein overexpression. Four of 5 tumors with AI of **PSCA** overexpressed **PSCA** protein, compared with only 2/15 tumors with a normal **PSCA** copy number or simple gain of **PSCA** ($P = 0.014$). These results demonstrate that **PSCA** is co-overrepresented with MYC in a majority of cases, but may not be a necessary part of the 8q amplicon. **PSCA** protein overexpression can result from AI of **PSCA** and might be useful as a cell surface marker on **prostate cancer** cells with 8q overrepresentation. Genes Chromosomes **Cancer** 27:95-103, 2000.

L52 ANSWER 37 OF 47 BIOSIS COPYRIGHT 2001 BIOSIS

2000:351436 Document No.: PREV200000351436. **Prostate stem cell antigen** (**PSCA**) is overexpressed in a majority of **bladder cancers**. Amara, Nordine (1); Gu, Zhennan (1); Sulur, Giriga (1); Schrage, Matthew (1); Thomas, Georges (1); Said, Jonathan (1); Reiter, Robert (1). (1) Departments of Urology and Pathology, UCLA School of Medicine, Los Angeles, CA USA. European Urology, (March, 2000) Vol. 37, No. Suppl. 2, pp. 89. print. Meeting Info.: XVth Congress of the European Association of Urology Brussels, Belgium April 12-15, 2000 ISSN: 0302-2838. Language: English. Summary Language: English.

L52 ANSWER 38 OF 47 BIOSIS COPYRIGHT 2001 BIOSIS

2000:214143 Document No.: PREV200000214143. The 9kb **prostate stem cell antigen** promoter directs reporter

gene expression to the ductal tips of **prostate** in transgenic mice. Watabe, Tetsuro (1); Lin, Mark; Donjacour, Annemarie; Cunha, Gerald R.; Witte, Owen N.; Reiter, Robert E.. (1) San Francisco, CA USA. Journal of Urology, (April, 2000) Vol. 163, No. 4 Suppl., pp. 31. Meeting Info.: 95th Annual Meeting of the American Urological Association, Inc. Atlanta, Georgia, USA April 29, 2000-May 04, 1999 ISSN: 0022-5347. Language: English. Summary Language: English.

L52 ANSWER 39 OF 47 CAPLUS COPYRIGHT 2001 ACS DUPLICATE 17
1999:811109 Document No. 132:69323 **Prostate**-associated antigen composition with chitosan metal chelate for the treatment of prostatic **carcinoma**. Seid, Christopher Allen; Singh, Gurpreet (Zonagen, Inc., USA). PCT Int. Appl. WO 9965521 A1 19991223, 65 pp. DESIGNATED STATES: W: AU, CA, CN, JP; RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE. (English). CODEN: PIXXD2. APPLICATION: WO 1999-US9592 19990430. PRIORITY: US 1998-99017 19980617.
AB The present invention relates generally to materials and methods for redn. and/or alleviation of prostatic and prostatic-related (metatastic) **carcinoma** via the administration of compns. comprising a **prostate**-assocd. antigen and a chitosan-metal chelate.

L52 ANSWER 40 OF 47 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 2000-052911 [04] WPIDS
AB WO 9956779 A UPAB: 20000124
NOVELTY - Detection of **prostate cancer** involves determining the ratio in a body fluid sample of:
(i) the number of **prostate** cells to the total number of epithelial cells; or
(ii) the number of **prostate** cells which express a tumor associated marker to the total number of **prostate** cells.
The ratio is elevated in **prostate cancer** patients relative to that in other individuals.
DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for a kit for detecting **prostate cancer**, comprising:
(a) a **prostate** cell marker-specific antibody; and
(b) an epithelial cell marker-specific antibody or a tumor associated marker-specific antibody.
USE - For the early detection of **prostate cancer**.
Semen samples from patients with or without **prostate cancer** were analyzed by flow cytometry to determine the number of **prostate** cells and epithelial cells. The ratio of **prostate** specific membrane antigen (PSMA) positive cells to cytokeratin positive cells was 0.024-0.38 (mean 0.11) in patients without and 0.121-0.994 (mean 0.57) in patients with **prostate cancer**, the 'cut value' at which a patient was classified as positive was 0.21.
ADVANTAGE - The cytologically based assay is non-invasive and less expensive than conventional invasive methods. Patients can be followed more frequently without repeated biopsies.
Dwg.0/6

L52 ANSWER 41 OF 47 BIOSIS COPYRIGHT 2001 BIOSIS
2000:285682 Document No.: PREV200000285682. Target antigens for

prostate cancer immunotherapy. Saffran, Douglas C.; Reiter, Robert E.; Jakobovits, Ay; Witte, Owen N.. Cancer and Metastasis Reviews, (1999) Vol. 18, No. 4, pp. 437-449. print.. ISSN: 0167-7659. Language: English. Summary Language: English.

L52 ANSWER 42 OF 47 MEDLINE DUPLICATE 18
1999262437 Document Number: 99262437. PubMed ID: 10325497. Changes in gene expression and targets for therapy. Bussemakers M J. (Urology Research Laboratory, University Hospital, Nijmegen, The Netherlands.. m.bussemakers@uro.azn.nl) . EUROPEAN UROLOGY, (1999) 35 (5-6) 408-12. Ref: 28. Journal code: ENM; 7512719. ISSN: 0302-2838. Pub. country: Switzerland. Language: English.
AB A better understanding of the molecular changes associated with the onset and progression of **prostate cancer** may provide us with a rational basis for the development of new diagnostic and therapeutic tools. Likewise, the recent identification of critical biochemical pathways, including angiogenesis, programmed cell death, cell adhesion and signal transduction, provide us with promising targets for therapeutic approaches. Furthermore, the identification and characterization of new tumor-specific antigens or **prostate-cancer**-specific gene promoters could be instrumental for the development of new treatment modalities. Many research groups are trying to identify genes that are involved in **prostate cancer** development and which may serve as new tumor markers and potential targets for therapy. In addition to **prostate**-specific antigen, **prostate**-specific membrane antigen and human kallikrein-2, the recently identified **prostate stem cell antigen** may also provide us with a new tool for the diagnosis and treatment of **prostate cancer**. Our own studies led to the identification of DD3, a gene that is strongly overexpressed in human prostatic **cancers** and the expression of which appears to be restricted to the **prostate**. Further studies are necessary to establish the clinical usefulness of these new **prostate-cancer**-specific genes for the management of **prostate cancer** patients.

L52 ANSWER 43 OF 47 MEDLINE
1999382655 Document Number: 99382655. PubMed ID: 10453283. Stem cell genes in androgen-independent **prostate cancer**. Bui M; Reiter R E. (Department of Urology, Jonsson Comprehensive Cancer Center, UCLA School of Medicine, USA.) CANCER AND METASTASIS REVIEWS, (1998-99) 17 (4) 391-9. Ref: 60. Journal code: C9H; 8605731. ISSN: 0891-9992. Pub. country: United States. Language: English.
AB Despite recent advances in the detection and treatment of early stage **prostate cancer**, there remains little effective therapy for patients with locally advanced and/or metastatic disease. Although the majority of patients with advanced disease respond initially to androgen ablation therapy, most go on to develop androgen-independent tumors that are inevitably fatal. Therefore, understanding the mechanisms by which a hormone-sensitive tumor escapes hormonal control is critical to the development of effective therapeutic modalities. The study of the differentiation pathways of normal and abnormal **prostate** growth has led to the development of a stem cell model for **prostate**

cancer [1-3]. Recent work discussed in this commentary suggests that **prostate** tumors resist apoptosis and proliferate by adopting features of normal prostatic stem/progenitor cells. Basal cells, the putative stem/progenitor cells of the **prostate**, possess the phenotype of androgen-independence as do most advanced **prostate cancers**. Therefore, the study of basal cells may prove critical to understanding **prostate** carcinogenesis and to the development of novel strategies for preventing and managing **prostate cancer**.

L52 ANSWER 44 OF 47 BIOSIS COPYRIGHT 2001 BIOSIS
1999:178938 Document No.: PREV199900178938. Monoclonal antibodies against **prostate stem cell antigen** (**PSCA**) detect high levels of **PSCA** expression in **prostate cancer** bone metastases. Gu, Zennan; Shintaku, Peter; Yamashiro, Joyce; Said, Jonathan; Reiter, Robert E.. Los Angeles, CA USA. Journal of Urology, (April, 1999) Vol. 161, No. 4 SUPPL., pp. 126.
Meeting Info.: 94th Annual Meeting of the American Urological Association, Inc. Dallas, Texas, USA May 1-6, 1999 American Urological Association.
ISSN: 0022-5347. Language: English.

L52 ANSWER 45 OF 47 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 1998-520801 [44] WPIDS
AB WO 9840403 A UPAB: 19981104
Isolated **prostate stem cell antigen** protein (**PSCA**) having 123 amino acid sequence (I) or (II) of human or murine **PSCA** respectively, or encoded by nucleic acid molecules hybridising to sequences encoding these , is new. Also claimed are: (1) **PSCA** peptide fragments, especially having amino acid sequences (III) or (IV): TARIRAVGLLTCISK (III) VDDSQDYYVGKK (IV) (2) antibodies (or fragments containing antigen binding site) in which antigen binding site recognises and binds **PSCA**; (3) nucleic acid molecules (optionally cDNA) encoding **PSCA**/peptide fragments of (1); (4) vectors comprising nucleic acids, and (5) host cells (optionally bacterial/eukaryotic) comprising vector (all sequences are given in the specification).
USE - **PSCA** proteins may be used as diagnostic and/or prognostic markers of **prostate cancer**, by quantifying **PSCA** concentrations in samples (such as a tissue samples, e.g. bone, bone marrow or **prostate** tissue, or biological fluid samples e.g. urine or blood sera) (claimed). **PSCA** was widely over-expressed across all stages of **prostate cancer**, including high grade **prostate** intraepithelial neoplasia and androgen-dependent and -independent **prostate** tumours. **PSCA** (or encoding nucleic acids) can also be used therapeutically in vaccines to elicit immune responses, in assays to isolate ligands/other binding agents and to produce antibodies. **PSCA** antibodies are useful in diagnostic/prognostic assays to detect **PSCA** (e.g. tissue or biological fluid samples as above), e.g. to diagnose **cancers** associated with **PSCA** presence by quantifying the number of cells associated with the protein (claimed), or to monitor the

course of **prostate cancer** is subjects, by comparing amounts of **PSCA** protein in successive samples (claimed). They may also be used systemically to treat **prostate cancer** ; antibodies conjugated with toxic agents e.g. ricin can especially be used to selectively kill cells expressing **PSCA** antigens (claimed). The nucleic acids are useful to detect **PSCA**-encoding nucleic acids (especially **PSCA** RNA) (claimed), e.g. to diagnose **prostate cancer** by quantifying **PSCA**-encoding RNA in samples (claimed) or to monitor the course of **prostate cancer** in subjects by comparing amounts of **PSCA**-encoding RNA in successive samples (claimed).
Dwg.0/15

L52 ANSWER 46 OF 47 MEDLINE DUPLICATE 19
1998132661 Document Number: 98132661. PubMed ID: 9465086.
Prostate stem cell antigen: a cell surface marker overexpressed in **prostate cancer**.
Reiter R E; Gu Z; Watabe T; Thomas G; Szigeti K; Davis E; Wahl M; Nisitani S; Yamashiro J; Le Beau M M; Loda M; Witte O N. (Department of Urology, University of California, Los Angeles, CA 90095, USA.. rreiter@urology.medsch.ucla.edu) . PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, (1998 Feb 17) 95 (4) 1735-40.
Journal code: PV3; 7505876. ISSN: 0027-8424. Pub. country: United States.
Language: English.
AB The identification of cell surface antigens is critical to the development of new diagnostic and therapeutic modalities for the management of **prostate cancer. Prostate stem cell antigen** (**PSCA**) is a **prostate** -specific gene with 30% homology to stem cell antigen 2, a member of the Thy-1/Ly-6 family of glycosylphosphatidylinositol (GPI)-anchored cell surface antigens. **PSCA** encodes a 123-aa protein with an amino-terminal signal sequence, a carboxyl-terminal GPI-anchoring sequence, and multiple N-glycosylation sites. **PSCA** mRNA expression is **prostate**-specific in normal male tissues and is highly up-regulated in both androgen-dependent and -independent **prostate cancer** xenografts. In situ mRNA analysis localizes **PSCA** expression in normal **prostate** to the basal cell epithelium, the putative stem cell compartment of the **prostate**. There is moderate to strong **PSCA** expression in 111 of 126 (88%) **prostate cancer** specimens examined by in situ analysis, including high-grade prostatic intraepithelial neoplasia and androgen-dependent and androgen-independent tumors. Flow cytometric analysis demonstrates that **PSCA** is expressed predominantly on the cell surface and is anchored by a GPI linkage. Fluorescent in situ hybridization analysis localizes the **PSCA** gene to chromosome 8q24.2, a region of allelic gain in more than 80% of **prostate cancers**. A mouse homologue with 70% amino acid identity and similar genomic organization to human **PSCA** has also been identified. These results support **PSCA** as a target for **prostate cancer** diagnosis and therapy.

L52 ANSWER 47 OF 47 MEDLINE DUPLICATE 20

1998301763 Document Number: 98301763. PubMed ID: 9637916.
Prostate cancer: new therapies in the pipeline?.
Hurlstone A; Black D M. (Beatson Institute for Cancer Research, CRC Beatson Laboratories, Bearsden, Glasgow, UK.. d.black@udcf.gla.ac.uk) .
CURRENT BIOLOGY, (1998 Jun 4) 8 (12) R428-30. Ref: 17. Journal code: B44;
9107782. ISSN: 0960-9822. Pub. country: ENGLAND: United Kingdom.
Language:
English.
AB **Cancer** of the **prostate** gland is the highest unavoidable cause of **cancer** mortality in men. The recent identification and characterisation of genes specifically expressed in **prostate cancer** helps us to understand its molecular basis and should offer new therapeutic avenues to combat this disease.

```
L53        3056 FILE MEDLINE
L54        7129 FILE CAPLUS
L55        2583 FILE BIOSIS
L56        6290 FILE EMBASE
L57         786 FILE WPIDS
L58         133 FILE JICST-EPLUS

TOTAL FOR ALL FILES
L59       19977 (CYTOTOXIC AGENT OR L1 OR MAYTANSINOID)

=> s l59 and (pta(w)(717 or 718 or 719 or 720 or 880 or 2265 or 2264))
L60           0 FILE MEDLINE
L61           0 FILE CAPLUS
L62           0 FILE BIOSIS
L63           0 FILE EMBASE
L64           1 FILE WPIDS
L65           0 FILE JICST-EPLUS

TOTAL FOR ALL FILES
L66           1 L59 AND (PTA(W)(717 OR 718 OR 719 OR 720 OR 880 OR 2265 OR
2264)
                )

=> d

L66  ANSWER 1 OF 1  WPIDS COPYRIGHT 2001   DERWENT INFORMATION LTD
AN   2001-389954 [41]   WPIDS
DNC  C2001-118830
TI   Novel anti-prostate stem cell antigen (PSCA) antibody that internalizes
on
     binding to PSCA on mammalian cell and inhibits growth of PSCA-expressing
     cancer cells in vivo, useful for killing PSCA-expressing cancer cells.
DC   B04 D16
IN   DEVAUX, B; KELLER, G; KOEPPEN, H; LASKY, L A
PA   (GETH) GENENTECH INC
CYC  94
PI   WO 2001040309 A2 20010607 (200141)* EN  112p    C07K016-30
        RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ
```

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            NL OA PT SD SE SL SZ TZ UG ZW
          W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM
             DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC
             LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE
             SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
ADT  WO 2001040309 A2 WO 2000-US29603 20001027
PRAI US 2000-182872   20000216; US 1999-162558   19991029
IC   ICM  C07K016-30
     ICS  A61K039-395; A61K047-48; A61K051-10; C12N005-10; C12N005-16;
          C12N015-13; C12N015-67


=> s devaux b?/au,in;s keller g?/au,in;s koeppen h?/au,in;s lasky l?/au,in
'IN' IS NOT A VALID FIELD CODE
L67          99 FILE MEDLINE
L68          62 FILE CAPLUS
L69         110 FILE BIOSIS
'IN' IS NOT A VALID FIELD CODE
L70         106 FILE EMBASE
L71           8 FILE WPIDS
L72           0 FILE JICST-EPLUS

TOTAL FOR ALL FILES
L73         385 DEVAUX B?/AU,IN


'IN' IS NOT A VALID FIELD CODE
L74         328 FILE MEDLINE
L75         546 FILE CAPLUS
L76         536 FILE BIOSIS
'IN' IS NOT A VALID FIELD CODE
L77         282 FILE EMBASE
L78         238 FILE WPIDS
L79           2 FILE JICST-EPLUS

TOTAL FOR ALL FILES
L80        1932 KELLER G?/AU,IN


'IN' IS NOT A VALID FIELD CODE
L81          32 FILE MEDLINE
L82          79 FILE CAPLUS
L83          57 FILE BIOSIS
'IN' IS NOT A VALID FIELD CODE
L84          32 FILE EMBASE
L85          23 FILE WPIDS
L86           1 FILE JICST-EPLUS

TOTAL FOR ALL FILES
L87         224 KOEPPEN H?/AU,IN


'IN' IS NOT A VALID FIELD CODE
L88         131 FILE MEDLINE
L89         129 FILE CAPLUS
```

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L90         232 FILE BIOSIS
'IN' IS NOT A VALID FIELD CODE
L91         121 FILE EMBASE
L92          31 FILE WPIDS
L93           1 FILE JICST-EPLUS

TOTAL FOR ALL FILES
L94         645 LASKY L?/AU,IN

=> s l94 and l87 and 80 and l73
L95           0 FILE MEDLINE
L96           0 FILE CAPLUS
L97           0 FILE BIOSIS
L98           0 FILE EMBASE
L99           0 FILE WPIDS
L100          0 FILE JICST-EPLUS

TOTAL FOR ALL FILES
L101          0 L94 AND L87 AND 80 AND L73

=> s l94 or l87 or l80 or l73
L102        588 FILE MEDLINE
L103        811 FILE CAPLUS
L104        932 FILE BIOSIS
L105        540 FILE EMBASE
L106        297 FILE WPIDS
L107          4 FILE JICST-EPLUS

TOTAL FOR ALL FILES
L108       3172 L94 OR L87 OR L80 OR L73

=> s l94 and l87 and l80 and l73
L109          0 FILE MEDLINE
L110          1 FILE CAPLUS
L111          0 FILE BIOSIS
L112          0 FILE EMBASE
L113          1 FILE WPIDS
L114          0 FILE JICST-EPLUS

TOTAL FOR ALL FILES
L115          2 L94 AND L87 AND L80 AND L73

=> dup rem l115
PROCESSING COMPLETED FOR L115
L116          1 DUP REM L115 (1 DUPLICATE REMOVED)

=> d cbib abs

L116 ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2001 ACS         DUPLICATE 1
2001:417017   Document No. 135:45190  Anti-prostate stem cell antigen (PSCA)
     antibody compositions and methods of use.  Devaux, Brigitte;
     Keller, Gilbert-andre; Koeppen, Hartmut; Lasky, Laurence A. (Genentech,
     Inc., USA).  PCT Int. Appl. WO 2001040309 A2 20010607, 112 pp.
DESIGNATED
     STATES: W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH,
```

CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 2000-US29603 20001027. PRIORITY: US 1999-PV162558 19991029; US 2000-PV182872 20000216.

AB The invention provides isolated anti-prostate stem cell antigen (PSCA) antibodies that internalize upon binding to PSCA on a mammalian in vivo. The invention also encompasses compns. comprising an anti-PSCA antibody and a carrier. These compns. can be provided in an article of manuf. or a kit. Another aspect of the invention is an isolated nucleic acid encoding an anti-PSCA antibody, as well as an expression vector comprising the isolated nucleic acid. Also provided are cells that produce the anti-PSCA antibodies. The invention encompasses a method of producing the anti-PSCA antibodies. Other aspects of the invention are a method of killing a PSCA-expressing cancer cell, comprising contacting the cancer cell with an anti-PSCA antibody and a method of alleviating or treating a PSCA-expressing cancer in a mammal, comprising administering a therapeutically effective amt. of the anti-PSCA antibody to the mammal.

```
=> s l8 and l108
L117          1 FILE MEDLINE
L118          2 FILE CAPLUS
L119          2 FILE BIOSIS
L120          1 FILE EMBASE
L121          1 FILE WPIDS
L122          0 FILE JICST-EPLUS

TOTAL FOR ALL FILES
L123          7 L8 AND L108

=> s l123 not l115
L124          1 FILE MEDLINE
L125          1 FILE CAPLUS
L126          2 FILE BIOSIS
L127          1 FILE EMBASE
L128          0 FILE WPIDS
L129          0 FILE JICST-EPLUS

TOTAL FOR ALL FILES
L130          5 L123 NOT L115

=> dup rem l130
PROCESSING COMPLETED FOR L130
L131           2 DUP REM L130 (3 DUPLICATES REMOVED)

=> d cbib abs 1-2
```

L131 ANSWER 1 OF 2 MEDLINE DUPLICATE 1
2001197933 Document Number: 21134051. PubMed ID: 11238029. Selective expression of murine **prostate stem cell antigen** in fetal and adult tissues and the transgenic adenocarcinoma of the mouse prostate model of prostate carcinogenesis. Ross S; Spencer S D; **Lasky L A; Koeppen H.** (Department of Pathology, Genentech, Inc., 1 DNA Way, South San Francisco, CA 94080, USA.) AMERICAN JOURNAL OF PATHOLOGY, (2001 Mar) 158 (3) 809-16. Journal code: 3RS; 0370502. ISSN: 0002-9440. Pub. country: United States. Language: English.

AB **Prostate stem cell antigen** (**PSCA**) is a GPI-anchored membrane protein whose expression is reportedly up-regulated in a majority of human prostate cancers, including advanced stages and metastases. In this study, we investigate the expression pattern of the murine orthologue of **PSCA** by in situ hybridization in fetal and adult mouse tissues. Murine **PSCA** is expressed during fetal development in the urogenital sinus, skin, and gastrointestinal tract. The expression in these tissues is restricted to the most superficial cell layer. In the adult mouse, expression is highest in the mucosal lining of the urinary tract. In the normal adult prostate, expression of **PSCA** is detected exclusively in the secretory epithelium. Examination of **PSCA** during carcinogenesis of the murine prostate in the transgenic adenocarcinoma of the mouse prostate model showed a markedly increased expression in areas of neoplasia. The transgenic adenocarcinoma of the mouse prostate model may represent a valuable model for the study of **PSCA** as a potential target for immunotherapy of prostate cancer, despite potential differences in the pattern of expression between mice and humans.

L131 ANSWER 2 OF 2 BIOSIS COPYRIGHT 2001 BIOSIS
2001:119536 Document No.: PREV200100119536. Expression of **prostate stem cell antigen** in normal and malignant prostate tissues: An evaluation by in-situ hybridization on tissue microarrays. Ross, Sarajane (1); Tobin, Patti (1); Eberhard, David (1); Pham, Thinh (1); Hillan, Kenneth (1); **Lasky, Larry (1); Koeppen, Hartmut (1)**. (1) Department of Pathology and Molecular Oncology, Genentech, Inc., South San Francisco, CA, 94080 USA. Laboratory Investigation, (January, 2001) Vol. 81, No. 1, pp. 121A. print. Meeting Info.: Annual Meeting of the United States and Canadian Academy of Pathology Atlanta, Georgia, USA March 03-09, 2001 ISSN: 0023-6837. Language: English. Summary Language: English.

=> del his y

=> fil caplus;e oxy-lna/ct 5

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	206.04	655.75

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION